Working with Fractions, Decimals, and Percents

Worked Examples

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Now let's compute exactly.

Your raise is (.20)(\$29,450) = \$5,890.

So your new salary is \$29,450 + \$5,890 = \$35,340.

(Yes, I used my calculator for this part.)

A sweater is on sale for 27% off. The original price was \$79.99. What is the sale price?

First, let's estimate. The sweater was originally about \$80, and the discount is about 25%, or 1/4 of that. It's easy for me to figure in my head that 1/4 of 80 is 20, so I know the discount is about \$20. So the sweater should cost about \$60.

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Now let's compute the exact answer:

The discount is (.27)(\$79.99) = \$13.4982 (yes, I used my calculator).

Since we don't use fraction of pennies, the discount will actually be \$13.50.

So the sweater will actually cost \$74.99 - \$13.50 = \$61.49.

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We slightly underestimated the price, because we slightly overestimated the discount when we said that 18% was about 20%. But our estimate is pretty close.

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Note that 1/5 = 20% is one of the common fractions, so we could have written the percent as soon as we recognized it.